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10/678,043	10/01/2003	John W. McIntosh	McIntoshProgrammerator	6636

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ALBERT W. WATKINS
30844 NE 1ST AVENUE
ST. JOSEPH, MN 56374

EXAMINER	
HEFFINGTON, JOHN M	
ART UNIT	**PAPER NUMBER**
2179	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/678,043	MCINTOSH ET AL.	
	Examiner	Art Unit	
	JOHN M. HEFFINGTON	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the Request For Continued Examination filed 22 August 2008. Claims 1-7 have been canceled. Claims 8, 14 and 15 have been amended. Claims 16-21 are new. Claims 8-21 are pending and have been considered below.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 August has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 8-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 8-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuttle et al. (US 5,157,782) in view of Moore et al. (US 5,604,509).

Claim 1: (Canceled)

Claim 2: (Canceled)

Claim 3: (Canceled)

Claim 4: (Canceled)

Claim 5: (Canceled)

Claim 6: (Canceled)

Claim 7: (Canceled)

Claims 8 and 16: Tuttle discloses method for using a first computer system to remotely monitor and interact with the operation of a second computer system through a graphical user interface of said second computer system, comprising the steps of:

a. receiving a first graphical element or a pixel image of a first graphical element of said second computer system graphical user interface at said first computer system (column 6, lines 11-21, column 8, lines 39-47);
b. generating a user peripheral input device input action within said second computer system graphical user interface as interpreted by a second computer peripheral input device controller channel by passing a signal from said first computer system to said second computer system graphical user interface (column 6, lines 1-10, 22-28);

c. monitoring said second computer system graphical user interface or a pixel image of said second computer system graphical user interface from said first computer system for an expected second graphical element (column 6, lines 28-30, 34-39); and

d. signaling a failure at said first computer system if said expected second graphical element is not detected (column 6, lines 39-41).

but does not disclose

a. generating a user peripheral input device input action within said second computer system graphical user interface as interpreted by a second computer peripheral input device controller channel by passing a signal **through an i/o communications channel** from said first computer system to said second computer system graphical user interface **responsive to said receiving step**;

b. monitoring said second computer system graphical user interface or a pixel image of said second computer system graphical user interface from said first computer system for an expected second graphical element within a **predetermined time interval**; and

c. signaling a failure at said first computer system **if said predetermined time interval elapses** without detecting said expected second graphical element.

However, Moore discloses a system where video data is sent from a second computer (a system under test) to a first computer (host or remote computer) over a

communication channel (column 2, lines 41-59) and displayed on a display of the first computer (column 3, lines 8-19). A user inputs, i.e. mouse and keyboard inputs, can be sent over a communications channel from the first (host or remote computer) to the second computer, system under test (column 4, lines 16-23) where the input data is processed (column 4, lines 39-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add generating a user peripheral input device input action within said second computer system (system under test) graphical user interface as interpreted by a second computer peripheral input device controller channel by passing a signal **through an i/o communications channel** from said first computer system (host or remote computer) to said second computer system graphical user interface responsive to said receiving step to Tuttle. One could have been motivated to add generating a user peripheral input device input action within said second computer system graphical user interface as interpreted by a second computer peripheral input device controller channel by passing a signal **through an i/o communications channel** from said first computer system to said second computer system graphical user interface responsive to said receiving step to Tuttle in order to extend the range of communication between the first and second computers of Tuttle. It appears that Tuttle is intended to be used wherein the first and second computers are in close proximity. Adding the limitations of Moore to Tuttle could allow Tuttle to be able to test the software/hardware of the second computer at the first computer over a network over a larger distance.

Neither Tuttle nor Moore disclose generating a user peripheral input device input action within said second computer system graphical user interface as interpreted by a second computer peripheral input device controller channel by passing a signal through an i/o communications channel from said first computer system to said second computer system graphical user interface **responsive to said receiving step**. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to add generating a user peripheral input device input action within said second computer system graphical user interface as interpreted by a second computer peripheral input device controller channel by passing a signal through an i/o communications channel from said first computer system to said second computer system graphical user interface **responsive to said receiving step** to Tuttle and Moore. One could have been motivated to add generating a user peripheral input device input action within said second computer system graphical user interface as interpreted by a second computer peripheral input device controller channel by passing a signal through an i/o communications channel from said first computer system to said second computer system graphical user interface **responsive to said receiving step** to Tuttle and Moore because as a user in Tuttle issues inputs that are communicated to the second computer and the second computer responds to the inputs with video signals, it is reasonable to conclude that a user's subsequent input(s) would be in response to video responses by the second computer as is typical when a user uses a user interface (UI) of a computer. That is, when a user engages a UI of a computer, the user's inputs are neither random nor disassociated from the response to the input. Therefore, it is

reasonable to conclude that in testing a UI or a computer, a user's input would be associated in some way, either in response to or in anticipation of, a UI response.

Neither Tuttle nor More disclose:

a. monitoring said second computer system graphical user interface or a pixel image of said second computer system graphical user interface from said first computer system for an expected second graphical element within a **predetermined time interval**; and
b. signaling a failure at said first computer system **if said predetermined time interval elapses** without detecting said expected second graphical element.

However, Tuttle discloses that at those points during playback which corresponds to the original command to capture visual display data, the software modules send the digital video signal processing unit (DVPU) the previously stored visual display signals, and the DVPU the captures new visual display signals from the visual display device. The previously stored visual display signals are compared by the DVPU to the newly captured visual display signals and if these signals do not match, then the DVPU sends an indication to the software modules on the host that an error has occurred (column 6, lines 31-41). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add

a. monitoring said second computer system graphical user interface or a pixel image of said second computer system graphical user interface from said first

computer system for an expected second graphical element within a **predetermined time interval**; and

b. signaling a failure at said first computer system **if said predetermined time interval elapses** without detecting said expected second graphical element,

to Tuttle and Moore. One could have been motivated to add

a. monitoring said second computer system graphical user interface or a pixel image of said second computer system graphical user interface from said first computer system for an expected second graphical element within a **predetermined time interval**; and

b. signaling a failure at said first computer system **if said predetermined time interval elapses** without detecting said expected second graphical element,

to Tuttle and Moore because It is unreasonable to conclude that a user in Tuttle would randomly intersperse capture commands through an input sequence. In fact, the examiner asserts that a user would initiate a capture command where it would be most appropriate to capture the video results of an input or a sequence of inputs. In other words, a user would only issue a capture when the user knew that an input or sequence of inputs would result in an expected video signal, i.e. the user would not issue the capture command **before** the expected resultant video signal. However, it is also unreasonable to expect that the user would wait an indeterminate amount of time after the input or sequence of inputs to issue a capture command. Therefore, it would have

been obvious to include a timing mechanism in the capture command such that the capture command is issued before after the expected resultant video signal is generated but within a reasonable amount of time.

Claims 9 and 17: Tuttle and Moore disclose the methods of claims 8 and 16 and Tuttle further discloses the steps of:

a. transferring said user input action to a script stored on said first computer system (column 7, lines 19-30);
b. re-executing said steps of receiving, generating, monitoring and signaling subsequent to said storing step under control of said stored script (column 7, lines 48-58)..

Claims 10 and 18: Tuttle and Moore disclose the methods of claims 8 and 16 and Tuttle discloses further the steps of:

a. providing graphical user interface language extensions commands to a scripting language (column 15, lines 56-68, column 16, lines 1-24); and
b. passing said generated user input action through said graphical user interface language extensions from a scripting language processor to a language extensions processor (column 8, lines 21-26).

Claims 11 and 19: Tuttle and Moore disclose the methods of claims 8 and 16 and Tuttle further discloses the steps of:

a. generating a user input action within said second computer system responsive to said second graphical element (column 8, lines 18-26);
b. monitoring said second computer system graphical user interface for an expected third graphical element within a predetermined time interval (column 6, lines 28-30, 34-39); and
c. signaling a failure at said first computer system if said predetermined time interval elapses without detecting said expected third graphical element (column 6, lines 39-41).

Claims 12 and 20: Tuttle and Moore disclose the methods of claims 8 and 16 and Tuttle further discloses the steps of:

a. receiving a local user input action at said first computer system within said local display (column 6, lines 1-4, column 36, lines 6-14);
b. wherein said generated user input action emulates said local user input action (column 7, lines 12-18),

but does not disclose depicting said second computer system graphical user interface upon a local display of said first computer system including said first graphical element. However, Moore discloses depicting said second computer system graphical user interface upon a local display of said first computer system including said first graphical element (column 3, lines 8-25). Further, Tuttle discloses that the first computer (host) has direct access to the digital video data of the display screen of the second computer

(system under test) (column 13, lines 57-59), and inputting inputs through a touch screen (column 36, lines 6-14). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add depicting said second computer system graphical user interface upon a local display of said first computer system including said first graphical element to Tuttle and Moore. One could have been motivated to add depicting said second computer system graphical user interface upon a local display of said first computer system including said first graphical element to Tuttle and Moore because as a user in Tuttle issues inputs that are communicated to the second computer and the second computer responds to the inputs with video signals, it is reasonable to conclude that a user's subsequent input(s) would be in response to video responses by the second computer as is typical when a user uses a user interface (UI) of a computer. That is, when a user engages a UI of a computer, the user's inputs are neither random nor disassociated from the response to the input. Therefore, it is reasonable to conclude that in testing a UI or a computer, a user's input would be associated in some way, either in response to or in anticipation of, a UI response. In order for a user to issue commands in response to UI responses on the second computer, it would be beneficial for the user to be able to see the display of the second computer on the display of the first computer.

Claims 13 and 21: The method of claim 8 further comprising the steps of:

a. providing graphical user interface language extensions commands to a scripting language (column 15, lines 56-68, column 16, lines 1-24); and

b. receiving a local user input action within said local display (column 6, lines 1-4, column 36, lines 6-14);

c. transferring said user input action to a script stored on said first computer system (column 7, lines 19-30);

d. passing said generated user input action through said graphical user interface language extensions from a scripting language processor to a language extensions processor for reproduction at said second computer system graphical user interface, wherein said generated user input action emulates said local user input action (column 15, lines 56-68, column 16, lines 1-24, column 8, lines 21-26, column 7, lines 12-18); and

e. re-executing said steps of receiving, generating, monitoring and signaling subsequent to said storing step under control of said stored script (column 7, lines 48-58),

and Moore discloses depicting said computer system graphical user interface upon a local display of said first computer system including said first graphical element (column 3, lines 8-25). Further, Tuttle discloses that the first computer (host) has direct access to the digital video data of the display screen of the second computer (system under test) (column 13, lines 57-59), and inputting inputs through a touch screen (column 36, lines 6-14). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add depicting said computer system graphical user interface upon a local display of said first computer system including said first graphical

element to Tuttle and Moore. One could have been motivated to add depicting said computer system graphical user interface upon a local display of said first computer system including said first graphical element to Tuttle and Moore because as a user in Tuttle issues inputs that are communicated to the second computer and the second computer responds to the inputs with video signals, it is reasonable to conclude that a user's subsequent input(s) would be in response to video responses by the second computer as is typical when a user uses a user interface (UI) of a computer. That is, when a user engages a UI of a computer, the user's inputs are neither random nor disassociated from the response to the input. Therefore, it is reasonable to conclude that in testing a UI or a computer, a user's input would be associated in some way, either in response to or in anticipation of, a UI response. In order for a user to issue commands in response to UI responses on the second computer, it would be beneficial for the user to be able to see the display of the second computer on the display of the first computer.

Claim 14: Tuttle discloses a method for enabling a local system to remotely operate a remote computer system through a graphical user interface on said remote computer system by using local scripts that selectively respond to changes in graphical displays upon said graphical user interface of said remote computer system, comprising the steps of:

a. capturing user input effected in said depiction of said remote system graphical user interface display (column 6, lines 22-28);

b. implementing through a local system command language set user input emulations representative of said captured user input reproduced at said remote computer system graphical user interface through a channel (column 15, lines 56-68, column 16, lines 1-24);
c. image processing said remote computer system graphical displays to detect changes in said graphical display upon said graphical user interface of said remote computer system (column 6, lines 28-30, 34-39);
d. controlling a flow of execution of said local system through a scripting language having scripting commands in combination with said command language set (column 6, lines 31-48); and
e. communicating between said local system and said remote computer system graphical user interface (column 6, lines 31-48).

Moore discloses displaying a depiction of said remote system graphical user interface display on said local system (column 3, lines 8-25). Further, Tuttle discloses that the first computer (host) has direct access to the digital video data of the display screen of the second computer (system under test) (column 13, lines 57-59), and inputting inputs through a touch screen (column 36, lines 6-14). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add displaying a depiction of said remote system graphical user interface display on said local system to Tuttle. One could have been motivated to add displaying a depiction of said remote system graphical user interface display on said local system to Tuttle because as a user

in Tuttle issues inputs that are communicated to the second computer and the second computer responds to the inputs with video signals, it is reasonable to conclude that a user's subsequent input(s) would be in response to video responses by the second computer as is typical when a user uses a user interface (UI) of a computer. That is, when a user engages a UI of a computer, the user's inputs are neither random nor disassociated from the response to the input. Therefore, it is reasonable to conclude that in testing a UI or a computer, a user's input would be associated in some way, either in response to or in anticipation of, a UI response. In order for a user to issue commands in response to UI responses on the second computer, it would be beneficial for the user to be able to see the display of the second computer on the display of the first computer.

Moore discloses a system where video data is sent from a second computer (a system under test) to a first computer (host or remote computer) over a communication channel (column 2, lines 41-59) and displayed on a display of the first computer (column 3, lines 8-19). A user inputs, i.e. mouse and keyboard inputs, can be sent over a communications channel from the first (host or remote computer) to the second computer, system under test (column 4, lines 16-23) where the input data is processed (column 4, lines 39-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add communicating between said local system and said remote computer system graphical user interface **through a communication interface** responsive to said flow controlling step to Tuttle and Moore.

One could have been motivated to add communicating between said local system and said remote computer system graphical user interface **through a communication interface** responsive to said flow controlling step to Tuttle and Moore in order to extend the range of communication between the first and second computers of Tuttle. It appears that Tuttle is intended to be used wherein the first and second computers are in close proximity. Adding the limitations of Moore to Tuttle could allow Tuttle to be able to test the software/hardware of the second computer at the first computer over a network over a larger distance.

Neither Tuttle nor Moore disclose controlling a flow of execution of said local system through a scripting language having scripting commands in combination with said command language set **responsive to a detection of changes during said image processing step**. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to add controlling a flow of execution of said local system through a scripting language having scripting commands in combination with said command language set **responsive to a detection of changes during said image processing step** to Tuttle and Moore. One could have been motivated to add controlling a flow of execution of said local system through a scripting language having scripting commands in combination with said command language set **responsive to a detection of changes during said image processing step** to Tuttle and Moore because as a user in Tuttle issues inputs that are communicated to the second computer and the second computer responds to the inputs with video signals, it is

reasonable to conclude that a user's subsequent input(s) would be in response to video responses by the second computer as is typical when a user uses a user interface (UI) of a computer. That is, when a user engages a UI of a computer, the user's inputs are neither random nor disassociated from the response to the input. Therefore, it is reasonable to conclude that in testing a UI or a computer, a user's input would be associated in some way, either in response to or in anticipation of, a UI response.

Claim 15: Tuttle and Moore disclose the method for enabling a local system to remotely operate a remote computer system through a graphical user interface on said remote computer system of claim 14 and Tuttle further discloses the steps of:

a. storing said scripting commands into a storing means (column 7, lines 23-26);
b. inserting a command from said command language set into said storing means (column 15, lines 56-63, column 29, lines 23-28); and
c. executing said inserted stored command (column 29, lines 29-39).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. HEFFINGTON whose telephone number is (571)270-1696. The examiner can normally be reached on Mon - Fri 8:00 - 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMH
11/6/08

/Ba Huynh/
Primary Examiner, Art Unit 2179